

1 1. In a system including a television and a video transmission medium,
2 wherein interactive broadcast data is transmitted across the video transmission medium,
3 wherein the television is configured to receive the interactive broadcast data, and wherein
4 the interactive broadcast data includes text descriptions, a method for efficiently searching
5 interactive broadcast data to find a string of text, the method comprising:

6 receiving binary signatures of the interactive broadcast data text descriptions;
7 receiving a user-entered text string from an input device;
8 converting the user-entered text string into a binary signature;
9 comparing the binary signatures of the interactive broadcast data text descriptions
10 to the binary signature of the user-entered text string; and
11 determining based on the comparison, if the user-entered text string is included in
12 any of the interactive broadcast data text descriptions.

13
14 2. The method as recited in claim 1, wherein receiving binary signatures of the
15 interactive broadcast data text descriptions comprises the following:

16 receiving binary signatures of the interactive broadcast data text descriptions, the
17 binary signatures being converted from interactive broadcast data text descriptions using a
18 first set of specified rules.

19
20 3. The method as recited in claim 2, wherein converting the user-entered text
21 string into a binary signature comprises the following:

22 converting the user-entered text string into a binary signature using a second set of
23 specified rules.
24

1 4. The method as recited in claim 3, wherein the first set of specified rules and
2 the second set of specified rules are the same.

3
4 5. The method as recited in claim 2, wherein receiving binary signatures of the
5 interactive broadcast data text descriptions, which were converted from interactive
6 broadcast data text descriptions to binary signatures of the interactive broadcast data text
7 descriptions using a first set of specified rules comprises the following:

8 receiving binary signatures of the interactive broadcast data text descriptions, the
9 binary signatures being converted from interactive broadcast data text descriptions using a
10 first hash function.

11
12 6. The method as recited in claim 5, wherein converting the user-entered text
13 string into a binary signature comprises the following:

14 converting the user-entered text string into a binary signature using a second hash
15 function.

16
17 7. The method as recited in claim 6, wherein the first hash function and the
18 second hash function are the same.

19
20 8. The method as recited in claim 1, wherein receiving binary signatures of the
21 interactive broadcast data text descriptions comprises the following:

22 receiving binary signatures of electronic program guide text descriptions.
23

1 9. The method as recited in claim 1, wherein receiving binary signatures of the
2 interactive broadcast data text descriptions comprises the following.

3 receiving binary signatures of a first fixed number of bytes.

4
5 10. The method as recited in claim 9, wherein converting the user-entered text
6 string into a binary signature comprises the following:

7 converting the user-entered text string into a second fixed number of bytes.

8
9 11. The method as recited in claim 10, wherein the first fixed number of bytes
10 and the second fixed number of bytes are the same.

11
12 12. The method as recited in claim 10, wherein comparing the binary signatures
13 of the interactive broadcast data text descriptions to the binary signature of the user-entered
14 text string comprises the following:

15 comparing bits included in the first fixed number of bytes to bits included in the
16 second fixed number of bytes.

17
18 13. The method as recited in claim 1, wherein comparing the binary signatures
19 of the interactive broadcast data text descriptions to the binary signature of the user-entered
20 text string comprises the following:

21 comparing the binary signatures of electronic program guide text descriptions to the
22 binary signature of the user-entered text string.

23

1 14. The method as recited in claim 1, wherein receiving binary signatures of the
2 interactive broadcast data text descriptions comprises the following:

3 receiving binary signatures of one or more language expressions.
4

5 15. The method as recited in claim 14, wherein receiving binary signatures of
6 one or more language expressions comprises the following:

7 receiving binary signatures of one or more language expressions, the binary
8 signatures being converted from the one or more language expressions using a first digest
9 function.
10

11 16. The method as recited in claim 15, wherein converting the user-entered text
12 string into a binary signature comprises the following:

13 converting a user-entered text string, which includes one or more language
14 expressions, into a binary signature using a second digest function.
15

16 17. The method as recited in claim 16, wherein the first digest function and the
17 second digest function are the same.
18

19 18. The method as recited in claim 1, wherein receiving binary signatures of the
20 interactive broadcast data text descriptions comprises the following:

21 a set top box associated with a television receiving binary signatures of the
22 interactive broadcast data text descriptions.
23

1 19. The method as recited in claim 1, wherein receiving a user-entered text
2 string from an input device comprises the following:

3 a set top box associated with a television receiving a user-entered text string from
4 an input device.

5
6 20. The method as recited in claim 1, further comprising:
7 storing the binary signatures of the interactive broadcast data text descriptions.

8
9 21. The method as recited in claim 20, wherein storing the binary signatures of
10 the interactive broadcast data text descriptions comprises the following:

11 storing the binary signatures of the interactive broadcast data text descriptions on
12 one or more physical storage media

13
14 22. The method as recited in claim 1, wherein comparing the binary signatures
15 of the interactive broadcast data text descriptions to the binary signature of the user-entered
16 text string comprises the following:

17 comparing each binary signature of an interactive broadcast data text description to
18 the results of a logical OR operation performed on each binary signature of an interactive
19 broadcast data text description and the binary signature of the user-entered text string.

20
21 23. The method as recited in claim 1, further comprising:
22 receiving additional text, which is associated with one or more interactive broadcast
23 data text descriptions.

24

1 24. The method as recited in claim 23, wherein receiving additional text, which
2 is associated with one or more interactive broadcast data text descriptions comprises the
3 following:

4 receiving additional text, which is associated with one or more electronic program
5 guide text descriptions
6

7 25. The method as recited in claim 23, wherein receiving additional text, which
8 is associated with one or more interactive broadcast data text descriptions comprises the
9 following:

10 receiving additional text, which is associated with one or more interactive broadcast
11 data text descriptions, if the user-entered text string is included in any of the interactive
12 broadcast data text descriptions.
13

14 26. The method as recited in claim 25, wherein receiving additional text, which
15 is associated with one or more interactive broadcast data text descriptions, if the user-
16 entered text string is included in any of the interactive broadcast data text descriptions
17 comprises the following:

18 receiving additional text, which is associated with one or more interactive broadcast
19 data text descriptions, if the results of a logical OR operation performed on any of the
20 binary signatures of the one or more interactive broadcast data text descriptions and the
21 binary signature of the user-entered text string is identical to any of the binary signatures of
22 the one or more interactive broadcast data text descriptions.
23

1 27. The method as recited in claim 1, wherein determining based on the
2 comparison, if the user-entered text string is included in any of the interactive broadcast
3 data text descriptions comprises the following:

4 determining based on the comparison, if the user-entered text string is included in
5 any electronic program guide text descriptions.
6

1 28. A computer program product for implementing, in a system including a
2 television, a set top box, and a video transmission medium, wherein interactive broadcast
3 data is transmitted across the video transmission medium, wherein the television is
4 configured to receive the interactive broadcast data, and wherein the interactive broadcast
5 data includes a text description of the subject matter, a method for efficiently searching
6 interactive broadcast data to find a string of text, the computer product comprising:

7 a computer-readable medium carrying computer-readable instructions, that when
8 executed at the set top box, cause the set top box to perform the following:

9 receive binary signatures of the interactive broadcast data text descriptions;
10 receive a user-entered text string from an input device;
11 convert the user-entered text string into a binary signature;
12 compare the binary signatures of the interactive broadcast guide text
13 descriptions to the binary signature of the user-entered text string; and
14 determine based on the comparison, if the user-entered text string is
15 included in any of the interactive broadcast data text descriptions.

16
17 29. The computer program product as recited in claim 28, wherein the computer
18 executable instructions that when executed at the set top box cause the set top box to
19 receive binary signatures of the interactive broadcast data text descriptions comprise the
20 following:

21 computer executable instructions that when executed at the set top box cause the set
22 top box to receive binary signatures of electronic program guide text descriptions.
23

30. The computer program product as recited in claim 28, wherein the computer-readable medium is one or more physical storage media.

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